

DIFFERENCE AMPLIFIER

ABSTRACT

A voltage regulation circuit. The voltage regulator includes an input stage, a reference voltage circuit, a gain stage, and an output stage. The reference voltage circuit is coupled to one input of the input stage, and the output stage is coupled to another input of the input stage. The gain stage includes a buffer device coupled to the output of the input stage and a drive circuit coupled to the output stage. The buffer device is operable to provide isolation between the input stage and the drive circuit. The drive circuit may include a first transistor coupled to the output stage, a base current translation circuit, and a current divide circuit coupled to the first transistor and to said base current translation circuit. The input stage may be biased with a substantially constant bias current, such that output dependent current loading effects are avoided.